

B2
End

subgroups including more than one drop generator, the subgroups being fluidically isolated from each other on the surface;

a printhead control electronics electrically coupled to the printhead, the printhead control electronics providing firing signals to the printhead such that no two drop generators in the same subgroup are activated in sequence.

B3

22. (Amended) A method of controlling a printhead, comprising:
providing a printhead having a substrate surface with a columnar group of drop generators formed on the surface that are arranged into subgroups each comprising more than one drop generator, each subgroup fluidically isolated from other subgroups on the surface; and

providing electrical signals to the printhead to activate the drop generators to eject fluid drops such that no two drop generators in the same subgroup are activated in sequence.

36. (Amended) An ink jet printhead comprising:
a substrate having an ink feed slot formed therein;
a thin film layer disposed on a surface of the substrate, the thin film layer defining a plurality of firing resistors, the thin film layer having a plurality of ink feed openings formed through to provide respective ink paths through the substrate and thin film layer;

B4

a barrier/orifice structure disposed on the thin film layer, the structure defining an array of nozzles arranged in a plurality of nozzle columns and an array of firing chambers in correspondence with the array of nozzles, the nozzles comprising the array are arranged in subgroups of nozzles, each subgroup comprising at least two nozzles, each subgroup fed with liquid ink through a corresponding ink flow path isolated from other nozzles of the array by the barrier layer/orifice structure;

the firing resistors being arranged in correspondence with the firing chambers;

the barrier/orifice structure further comprising a continuous rib portion extending between adjacent first and second ones of the plurality of nozzle columns to fluidically separate the first and second ones of the nozzle columns.